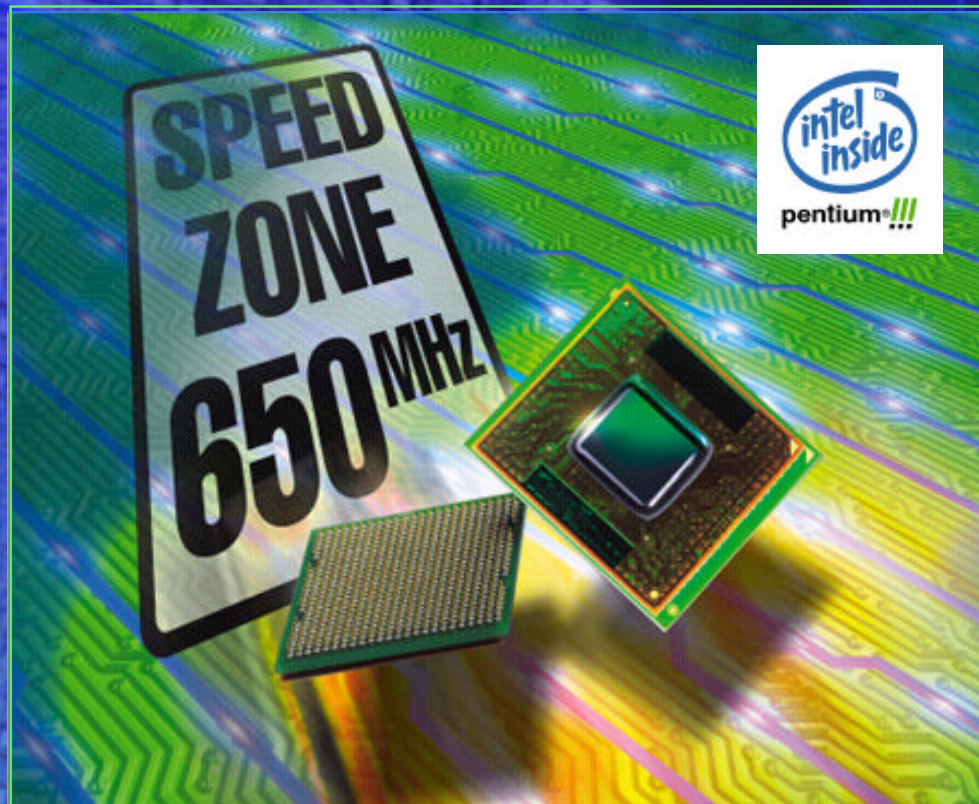


Intel® Speedstep™ Technology

Power for the People

Revolutionizing Computing with
Mobile Intel® Pentium® III Processors
Featuring Intel® SpeedStep™ Technology



A look back: How has computing evolved?

- 80's: The "PC": 1 processor, many applications
- Mid-90's: CPU Power and Platform Evolved to take advantage
- Late-90's: Segmentation: Processors designed specifically for each segment
- 1999: The Internet transforms everything

Meanwhile, How has usage evolved ?

- 80's: MS-DOS*, Text-based programs
- Mid-90's: Office productivity suites, graphics
- Late 90's: Dynamic Web content
 - Multimedia integration in apps
 - On-line interactive transactions
 - Background processing tasks

Usage evolve **beyond basic office apps**

- No Compromise
 - No ties to particular work-location
 - True portability
- Fact: Today, all facets of work and personal life are intertwined with and enhanced by computing: work, learn, communicate, play.

Compelling Benefits of Mobility

Emphasis on Workforce Flexibility



Companies Responding

Telecommuting

Childcare

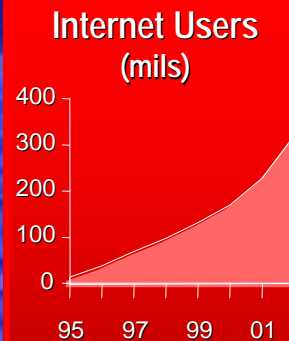
JOB SHARING

FlexTime

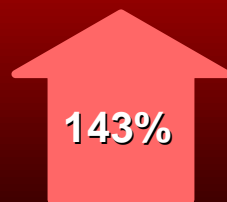
HOTELING

Source: Natl Study of Changing Workforce (1998)

Internet Increases PC Usage



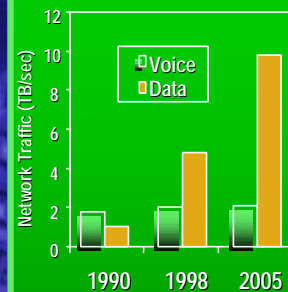
Projected Growth



1999-2002

Source: 3/99 Dataquest

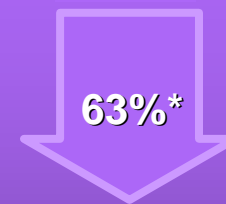
Anytime Anywhere Connectivity



- Data overtaking voice
- Wireless bandwidth coming with 2G+, 3G
- Costs down

Lower TCO and System ASPs

TCO



ASP



*1995 to 1998

Source: 3/99 A&S

** Q3'96-Q3'99

Source: Dataquest 12/99

Compelling Notebook Capabilities



Pentium® III
500 MHz

Thin & lights and Mini-Notebooks will be 65% of market by 2002

Thin & light becoming even thinner: 1-1.5" today to .85-1.25" in 2002

Mobile PCs: The Truly "Personal" Computer responding to the needs of people

Mobile Technology Evolution: We've come a long way

- Custom mobile processors
 - With mobile-friendly design specifications
- Innovative mobile packaging
 - Compact TCP, MiniCartridge, Mobile Modules, BGA, uPGA
- Leading to size and weight choices
 - Form-factors: Full-size, Thin & Light, Mini Notebook
- Rising screen sizes, display quality, resolution
- Thermal Cooling Capabilities
 - More performance in the thinnest notebooks
 - Tripled from <5W in early 90's to >15W today
 - From passive to active cooling technologies

1990

1992

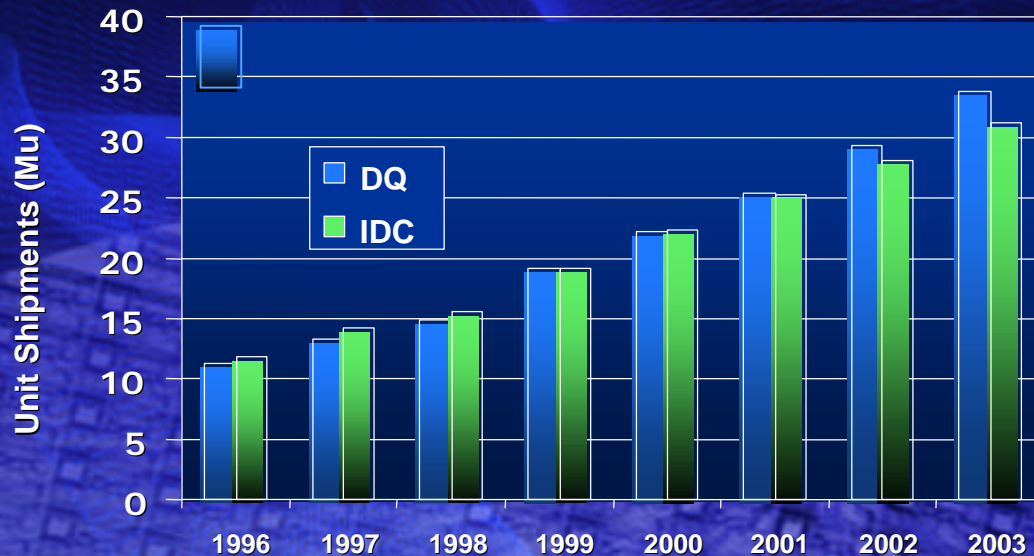
1994

1996

1998

2000

Resulting In Strong Market Growth



“Mobile computing is growing at an astounding rate in corporate America. Today, notebooks represent 30 to 35 percent of PCs and will represent as much as 50 percent within three or four years.”

Source: CMP Tech Web, June 8, 1999

- Benefits of mobility widely recognized
 - 85% of Large Businesses plan to buy mobile PCs within 1 yr
 - ~70% of Small Businesses will buy within 1 yr
 - 51% of Mobile PC users plan to buy another Mobile PC within 1 yr
 - 41% of all businesses plan to buy an ultraportable within 1 yr
 - Japan market is 50% mobile
 - Strong emerging market growth:
 - 30% growth in PRC; 18% growth over '98 for Latin America

**29*% Mobile Market Growth in 1999
with strong growth projections ahead**

What More Do Mobile Users Want ?

High Performance

- 80% say their CPU speed is insufficient

Portability

- 82% say their systems are “too heavy”

Ease of use

- 93% say their battery doesn't last long enough

Intel® Speedstep™ Technology

Today: The Next Revolutionary Milestone

- A generational leap in computing
- 3 Years in the making

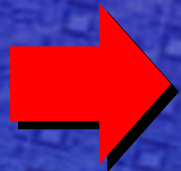
POWER FOR THE PEOPLE

Intel® Speedstep™ Technology

Introducing the
Mobile Pentium® III Processor
featuring
Intel SpeedStep™ Technology

What Were the Goals for Dramatic Mobile PC Improvement ?

- Desktop class performance
- Portability
- Ease of Use



Responding to the most frequently cited issues

Make the Performance/Mobility
Tradeoff (Simply) Obsolete

Intel® Speedstep™ Technology

Power of Mobile Pentium® III Processor with Intel SpeedStep™ Technology

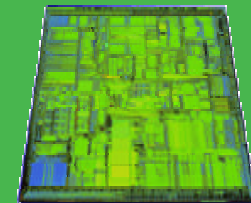
October '99

- 500MHz Performance (Oct '99)
- Internet Streaming SIMD Extensions
- 100 MHz PSB
- Advance Transfer Cache



- Improvements in power and performance

0.18μ



Intel® Speedstep™ Technology

Power of Mobile Pentium® III Processor with Intel SpeedStep™ Technology

January '00

Intel® SpeedStep™ technology

- 650MHz, 600MHz Performance
- Two performance modes with automatic switching for maximum performance without compromising battery life



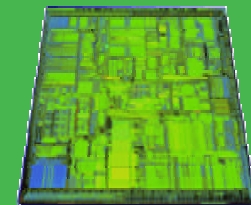
Outstanding
performance
and mobility

- 500MHz Performance (Oct '99)
- Internet Streaming SIMD Extensions
- 100 MHz PSB
- Advance Transfer Cache



- Improvements in power and performance

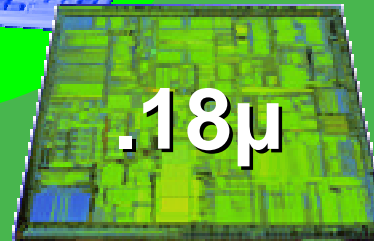
0.18μ



Intel® Speedstep™ Technology

Near Desktop Performance Is Achieved

Intel®
SpeedStep™ Technology



Power of Performance


*Optimized for the way you work -
Anytime, Anywhere*

- **In Maximum Performance mode:**

Run complex business and Internet applications at your desk or in the office while connected to external power



650 MHz
Maximum Power and Voltage



PERFORMANCE


POWER

- **In Battery Optimized mode:**

Unbound from the desktop, get the best balance between performance and battery life while on the road or away from the office



500 MHz
Lower Power and Voltage

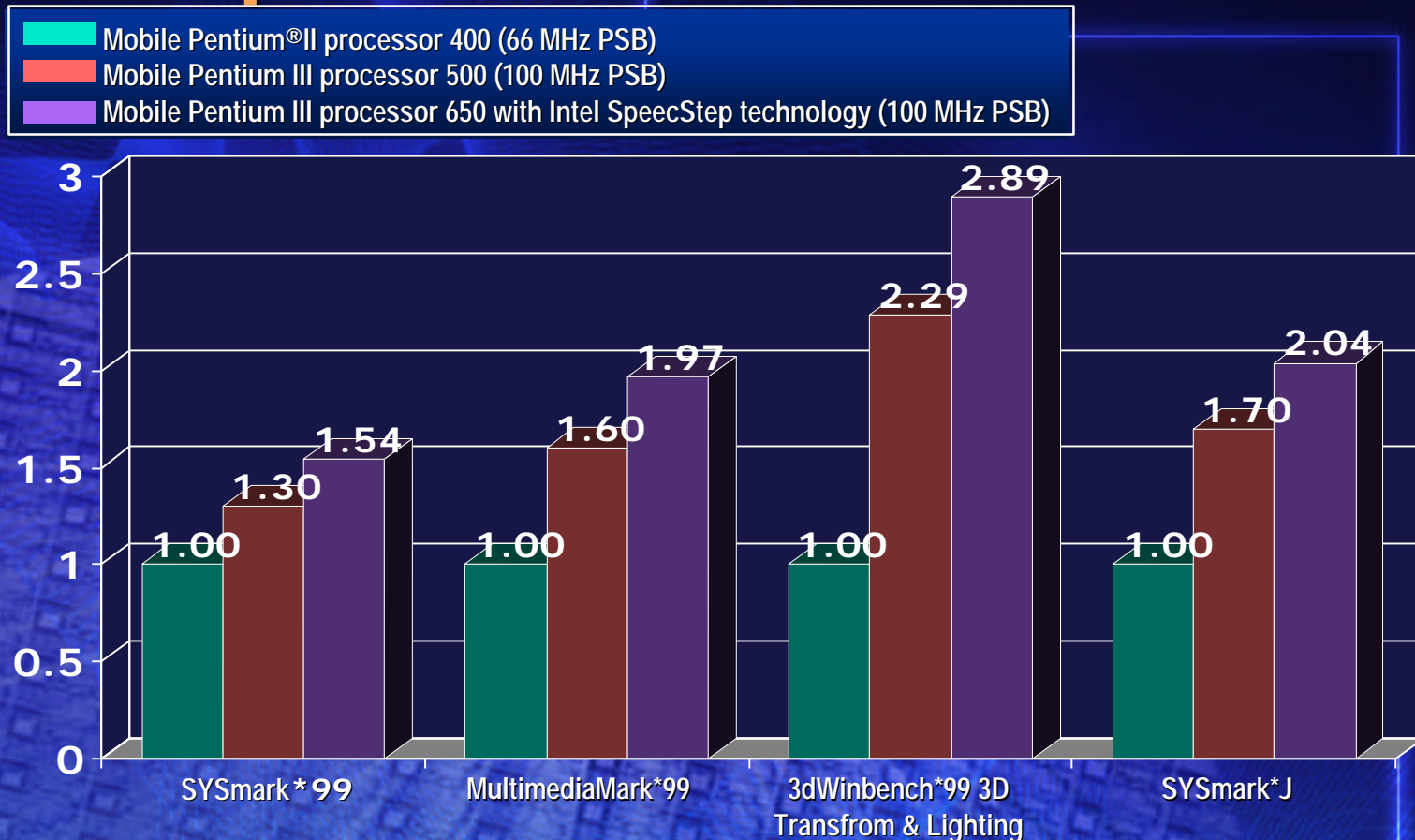


The user is empowered to choose

DEMO

Intel® Speedstep™ Technology

Turbo-powered Performance



Mobile Pentium® III with Intel SpeedStep technology rockets performance to incredible levels

Normalized to Pentium® II processor 400MHz. Pentium III processor 400MHz is a low voltage processor at 1.35V. Pentium® II processor was tested in IBM® Thinkpad® 770 with 256K of on-die L2 cache, 64MB SDRAM, DVD ROM, 440BX chipset with processor system bus at 66MHz, Trident® 9385DVD graphics, 8.1GB HDD, DirectX® 7.00G, and Windows® 98. Pentium III processors were tested in IBM Thinkpad 600, with 256K of on-die L2 cache, 64MB SDRAM, DVD ROM, 440BX chipset with processor system bus at 100MHz, NeoMagic® 256ZX graphics, IBM 10GB HDD, DirectX 7.00G, and Windows 98.

*Other brands and names are the property of their respective owners

Intel® Speedstep™ Technology

How Does it All Work?

Mobile Intel Pentium® III Processor featuring Intel® SpeedStep™ Technology

Microprocessor Specific Register ID (MSR) tells BIOS that it has the Intel SpeedStep technology feature and the available frequencies

Intel ASIC Logic, Intel Chipset

Tells Processor to Change Performance mode

Identification

Intel System Management Mode BIOS

Tells ASIC and Logic to change performance mode based on applet request

Identification

Operating System

Intel SpeedStep Technology Applet

Provides End User Interface and tells BIOS to Change Performance Mode

Authentication

Intel® Speedstep™ Technology

Why Is This So Different ?

Power

P
Power

μ

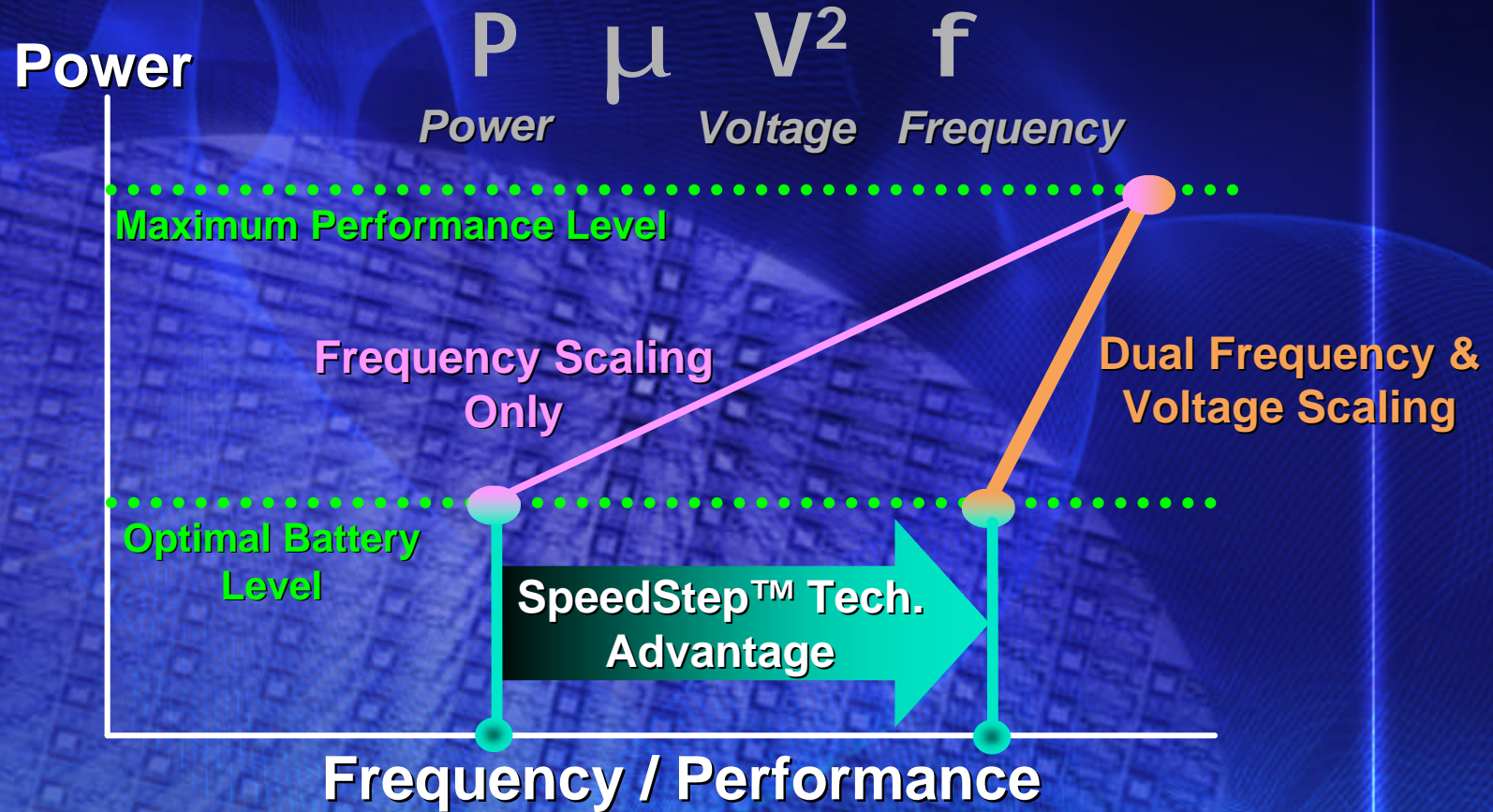
V^2
Voltage

f
Frequency

Frequency / Performance

Intel® Speedstep™ Technology

The Mobile Pentium® III with SpeedStep™ Technology Advantage



Dynamic Dual Frequency AND Voltage Switching
Provides Higher Performance at Same Power

Intel® Speedstep™ Technology

Mobile Pentium® III Processor
with SpeedStep™ Technology:

Revolutionizing Usage Models ...

Intel® Speedstep™ Technology

Power of Simplicity

Bringing new capabilities to
Consumers and Education

DEMO

Intel® Speedstep™ Technology

Power for the Internet, E-Business

- The PC defines the Internet experience, and is the number-one Internet access device
 - The most powerful and most versatile computing platform
- Mobile PCs offer the greatest flexibility
 - Performance, Portability, Connectivity Options
- Always available Internet and E-Business capability
 - Notebooks go where you go
 - No compromise in user interface, viewability
 - Runs conventional software, large screen
 - And no compromise in performance
 - For any web site multimedia, plug-ins, applets

Intel Mobile Pentium® III Processor with
SpeedStep™ Technology based Notebooks are the
ideal Internet access and E-Business client

DEMO

Intel® Speedstep™ Technology

Empowering Large Business

Eliminating the compromise -
how the enterprise benefits from
high-performance, user-friendly
mobile computing

DEMO

Intel® Speedstep™ Technology

Empowerment & Freedom: Rising to the Need

- Desktop Class Performance
 - 650MHz, 600MHz
- Portability
 - Revolutionary technology in the thinnest, lightest systems
- Ease of Use
 - Automatic switching

Tangible, compelling benefits for all users:
Consumers, Education, Large & Small Business

Intel® Speedstep™ Technology

Power of Working Together

- PC Industry Momentum

2000 Gets Better...

- Advances in wireless connectivity with Bluetooth technology
 - 90% of Mobile PCs in 2003 will have Bluetooth* technology
 - Internet connectivity anywhere
 - e-Business capability anywhere
- Continued performance advances

Intel® Speedstep™ Technology

Mobile Pentium® III Processor with Intel SpeedStep™ Technology Revolutionizes Computing

- Computing has evolved to putting people at the center of decision-making
 - Powerful Mobile PCs offer the best flexibility
- Robust mobile market growth ahead: big opportunity
- End-user's benefit from industry synergy
 - Intel's extensive leadership history, technical expertise, brand promise, quality
 - Broad industry cooperation [here in force today]
- Mobile Pentium III Processor with Intel SpeedStep™ Technology is the next generational leap in computing
 - Substantial, tangible end-user benefits

**Mobile Pentium III Processor with
Intel SpeedStep Technology based Notebooks:
*Empowering the People***